Assessment in the Cloud, Mixed Online and Onsite Assessments, Learning in the Cloud

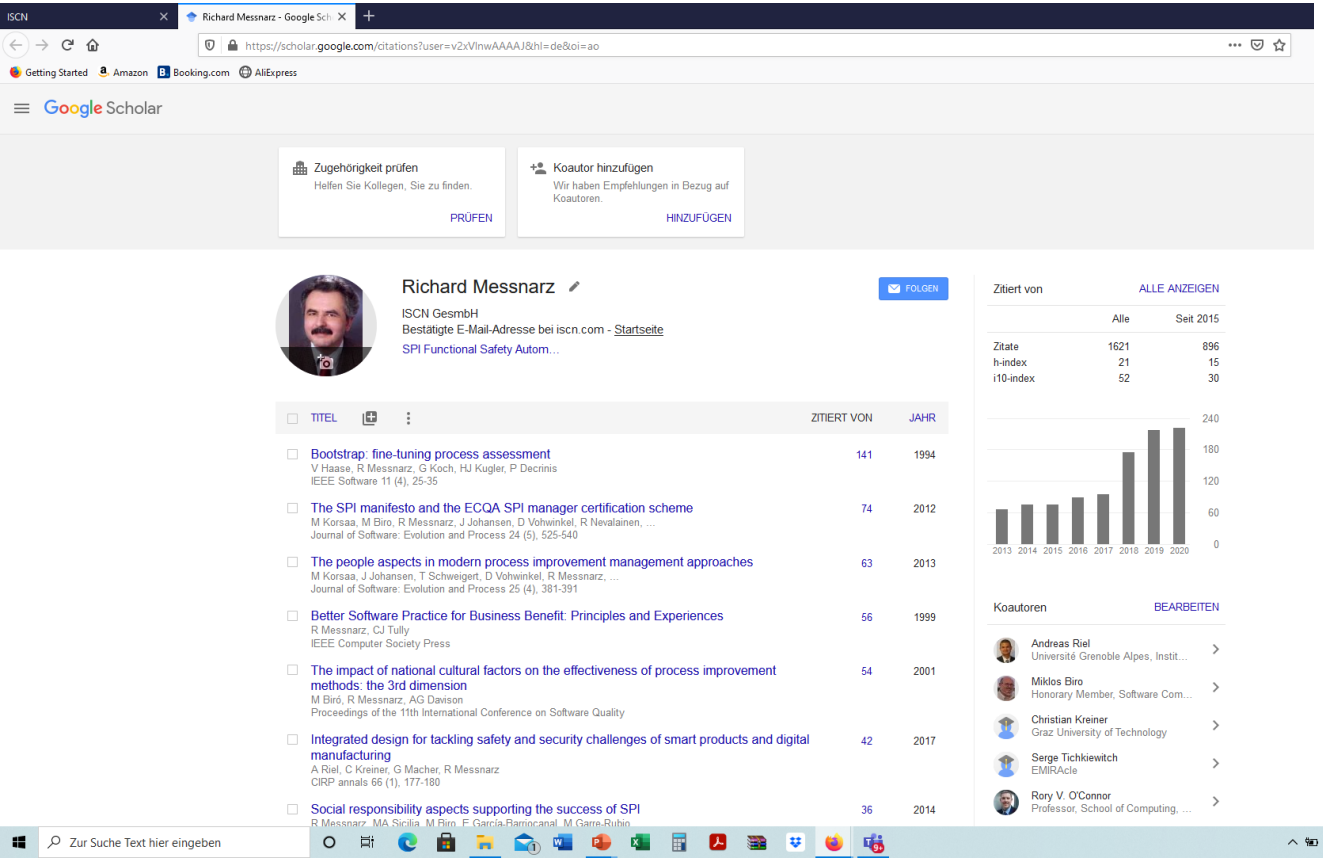
EuroSPI^2 TechDay, 7. 9. 2020

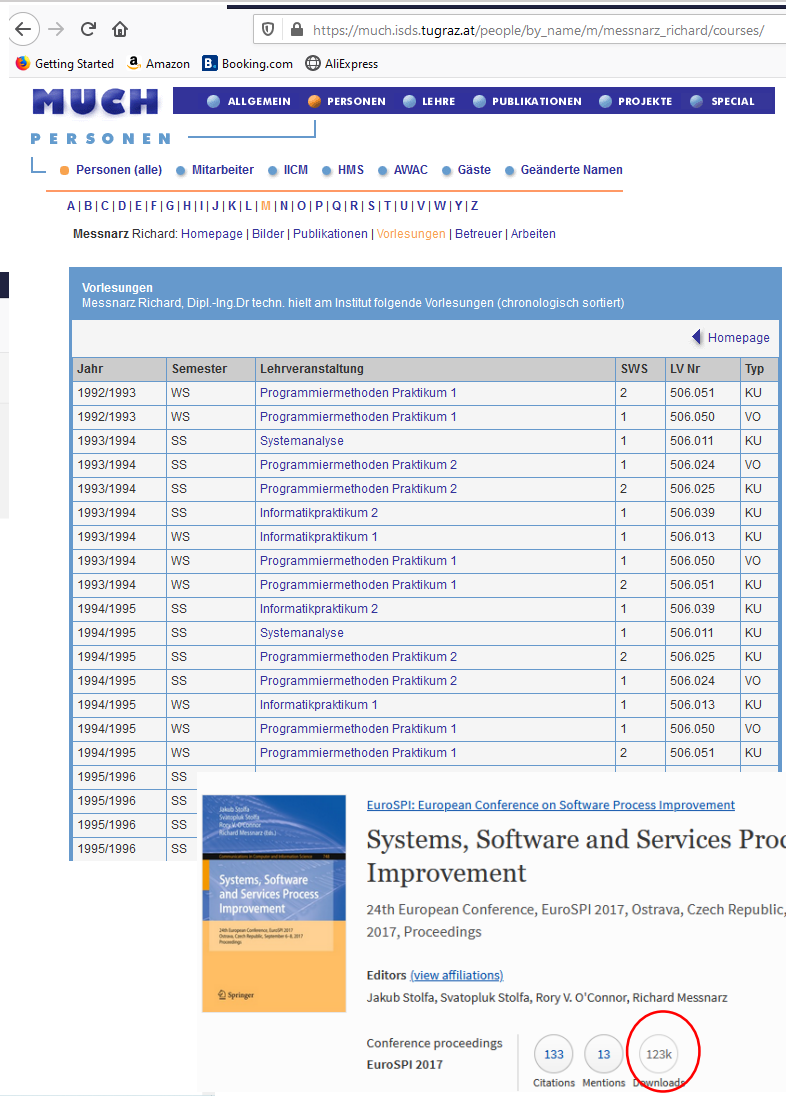
Authors: R. Messnarz, D. Ekert, B. Steger, A. Riel, G. Macher, L. Aschbacher

ISCN
www.iscn.com

© ISCN GesmbH 2020, the slides are copyrighted by ISCN GesmbH, no reproduction
Or distribution is allowed without written consent by ISCN GesmbH.

My profile


ISCN
Richard Messnarz - Google Sch
https://scholar.google.com/citations?user=v2xVInwAAAAJ&hl=de&oi=ao
Getting Started
Amazon
Booking.com
AliExpress
Google Scholar
Zugehörigkeit prüfen
Helfen Sie Kollegen, Sie zu finden.
PRÜFEN
Koautor hinzufügen
Wir haben Empfehlungen in Bezug auf Koautoren.
HINZUFÜGEN
Richard Messnarz
FOLGEN
ISCN GesmbH
Bestätigte E-Mail-Adresse bei iscn.com - Startseite
SPI Functional Safety Autom...
TITEL
ZITIERT VON
JAHR
Bootstrap: fine-tuning process assessment
V Haase, R Messnarz, G Koch, HJ Kugler, P Decrinis
IEEE Software 11 (4), 25-35
141
1994
The SPI manifesto and the ECQA SPI manager certification scheme
M Korsaa, M Biro, R Messnarz, J Johansen, D Vohwinkel, R Nevalainen, ...
Journal of Software: Evolution and Process 24 (5), 525-540
74
2012
The people aspects in modern process improvement management approaches
M Korsaa, J Johansen, T Schweigert, D Vohwinkel, R Messnarz, ...
Journal of Software: Evolution and Process 25 (4), 381-391
63
2013
Better Software Practice for Business Benefit: Principles and Experiences
R Messnarz, CJ Tully
IEEE Computer Society Press
56
1999
The impact of national cultural factors on the effectiveness of process improvement methods: the 3rd dimension
M Biró, R Messnarz, AG Davison
Proceedings of the 11th International Conference on Software Quality
54
2001
Integrated design for tackling safety and security challenges of smart products and digital manufacturing
A Riel, C Kreiner, G Macher, R Messnarz
CIRP annals 66 (1), 177-180
42
2017
Social responsibility aspects supporting the success of SPI
R Messnarz, MA Sicilia, M Biro, F García-Barriocanal, M Garre-Rubio
36
2014
Zitiert von
ALLE ANZEIGEN
Alle
Seit 2015
Zitate 1621 896
h-index 21 15
i10-index 52 30
2013 2014 2015 2016 2017 2018 2019 2020
Koautoren
BEARBEITEN
Andreas Riel
Université Grenoble Alpes, Instit...
Miklos Biro
Honorary Member, Software Com...
Christian Kreiner
Graz University of Technology
Serge Tichkiewitch
EMIRAcle
Rory V. O'Connor
Professor, School of Computing, ...
Zur Suche Text hier eingeben
DEU
09:06
07.09.2020


https://much.isds.tugraz.at/people/by_name/m/messnarz_richard/courses/
Getting Started
Amazon
Booking.com
AliExpress
MUCH
ALLGEMEIN
PERSONEN
LEHRE
PUBLIKATIONEN
PROJEKTE
SPECIAL
PERSONEN
Personen (alle)
Mitarbeiter
IICM
HMS
AWAC
Gäste
Geänderte Namen
A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | Y | Z
Messnarz Richard: Homepage | Bilder | Publikationen | Vorlesungen | Betreuer | Arbeiten
Vorlesungen
Messnarz Richard, Dipl.-Ing.Dr techn. hielt am Institut folgende Vorlesungen (chronologisch sortiert)
Homepage
Jahr | Semester | Lehrveranstaltung | SWS | LV Nr | Typ
1992/1993 | WS | Programmiermethoden Praktikum 1 | 2 | 506.051 | KU
1992/1993 | WS | Programmiermethoden Praktikum 1 | 1 | 506.050 | VO
1993/1994 | SS | Systemanalyse | 1 | 506.011 | KU
1993/1994 | SS | Programmiermethoden Praktikum 2 | 1 | 506.024 | VO
1993/1994 | SS | Programmiermethoden Praktikum 2 | 2 | 506.025 | KU
1993/1994 | SS | Informatikpraktikum 2 | 1 | 506.039 | KU
1993/1994 | WS | Informatikpraktikum 1 | 1 | 506.013 | KU
1993/1994 | WS | Programmiermethoden Praktikum 1 | 1 | 506.050 | VO
1993/1994 | WS | Programmiermethoden Praktikum 1 | 2 | 506.051 | KU
1994/1995 | SS | Informatikpraktikum 2 | 1 | 506.039 | KU
1994/1995 | SS | Systemanalyse | 1 | 506.011 | KU
1994/1995 | SS | Programmiermethoden Praktikum 2 | 2 | 506.025 | KU
1994/1995 | SS | Programmiermethoden Praktikum 2 | 1 | 506.024 | VO
1994/1995 | WS | Informatikpraktikum 1 | 1 | 506.013 | KU
1994/1995 | WS | Programmiermethoden Praktikum 1 | 1 | 506.050 | VO
1994/1995 | WS | Programmiermethoden Praktikum 1 | 2 | 506.051 | KU
1995/1996 | SS
1995/1996 | SS
1995/1996 | SS
1995/1996 | SS
EuroSPI: European Conference on Software Process Improvement
Systems, Software and Services Process Improvement
24th European Conference, EuroSPI 2017, Ostrava, Czech Republic, September 6–8, 2017, Proceedings
Editors (view affiliations)
Jakub Stolfa, Svatopluk Stolfa, Rory V. O'Connor, Richard Messnarz
Conference proceedings
EuroSPI 2017
133
Citations
13
Mentions
123k
Downloads

Motivation – The world is changing

- Distributed developed → Travel not economical (e.g. SW Testing in India, or e.g. system dev in Germany, SW dev in Spain, HW dev in Japan, etc.)
- Travel restrictions → Covid-19
- Perform an assessment in one week (reduce travel)
  - Assessments according to the VDA Guidelines require more effort
  - Capability Level 3 assessments require more effort
- Certification and Qualification Strategies at ACEA level
  - Core competencies development for cars in 2030
  - Online platforms to push qualification in new skills (from work place)
- Car to X infrastructure
  - We will need to assess cloud functions. We will need to find a way to assess AI functions. Etc.
- Human to X infrastructure
  - Biometrics integration is coming
- Cybersecurity is not affecting just the car, it is the whole environment (e.g. getting keys downloaded, but keys come from authorities etc.). Or uploading new SW for a whole fleet.
  - We need to assess infrastructure ?

The change is like the change from a mobile to a smart phone, and much more!

Online Assessments allowed?

- In the VDA Guidelines → section 8.3.1 **pure** online assessments (phone and/or video conferences) are considered as not appropriate.
- No such recommendation or rule in the ISO/IEC 330xx.
- Guideline for Remote Process Assessments published by intacs → to support online assessments during COVID-19

Case Study 1 - Different Austrian Sites and Germany

Team Set Up

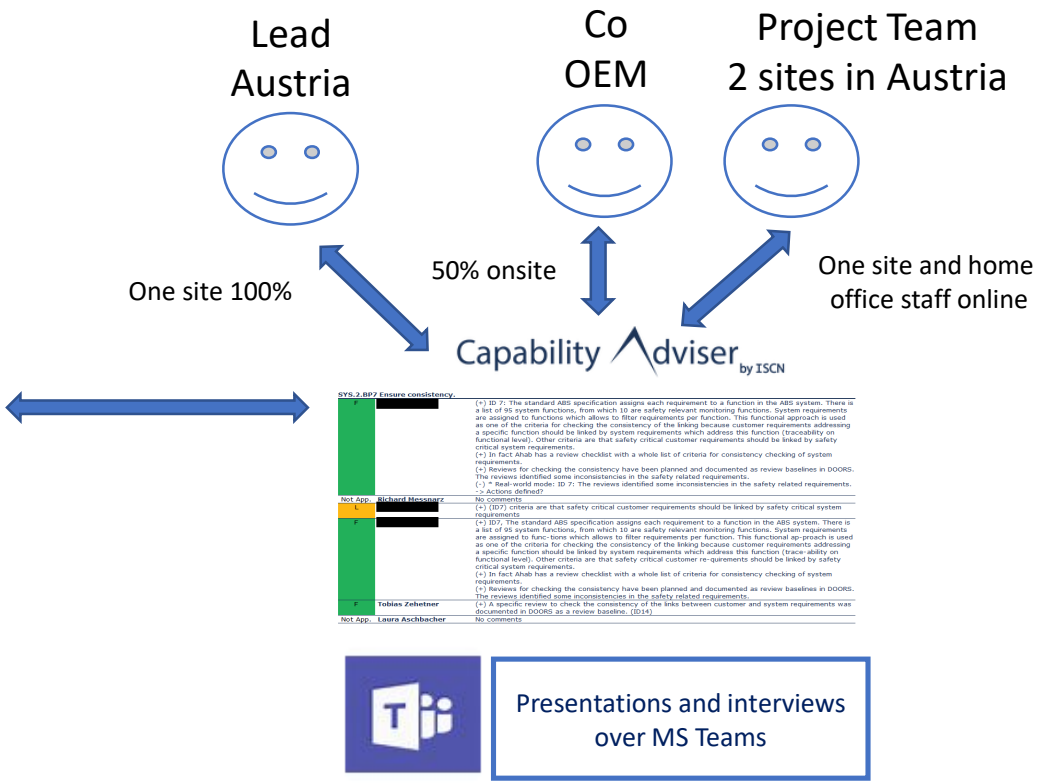
- Large German OEM participating onsite in 1st week and online in 2nd week
- Lead assessor in Austria onsite
- Company internal co-assessors onsite
- Interviewees from 2 different sites, one site and online (Covid19 home office)
- Ca. 30% staff home office and participating online via VPN

Technology Set Up

- Assessment Portal
- **Each assessor rating separately, sharing comments to BPs/GPs by a consolidation view**
- All connected by MS Teams
- Access and demonstration of content by the interviewee in MS teams and accessing project data by VPN

Organisational Set Up

- **For 8 days full day sessions,** but **breaks required** every hour. Due to communication complexity more time needed in interviews. Thus instead of 6 days about 8 days needed.
- 1 project assessed



Case Study 2 - Safety Extension – Germany, Japan, Spain and Austria

Team Set Up

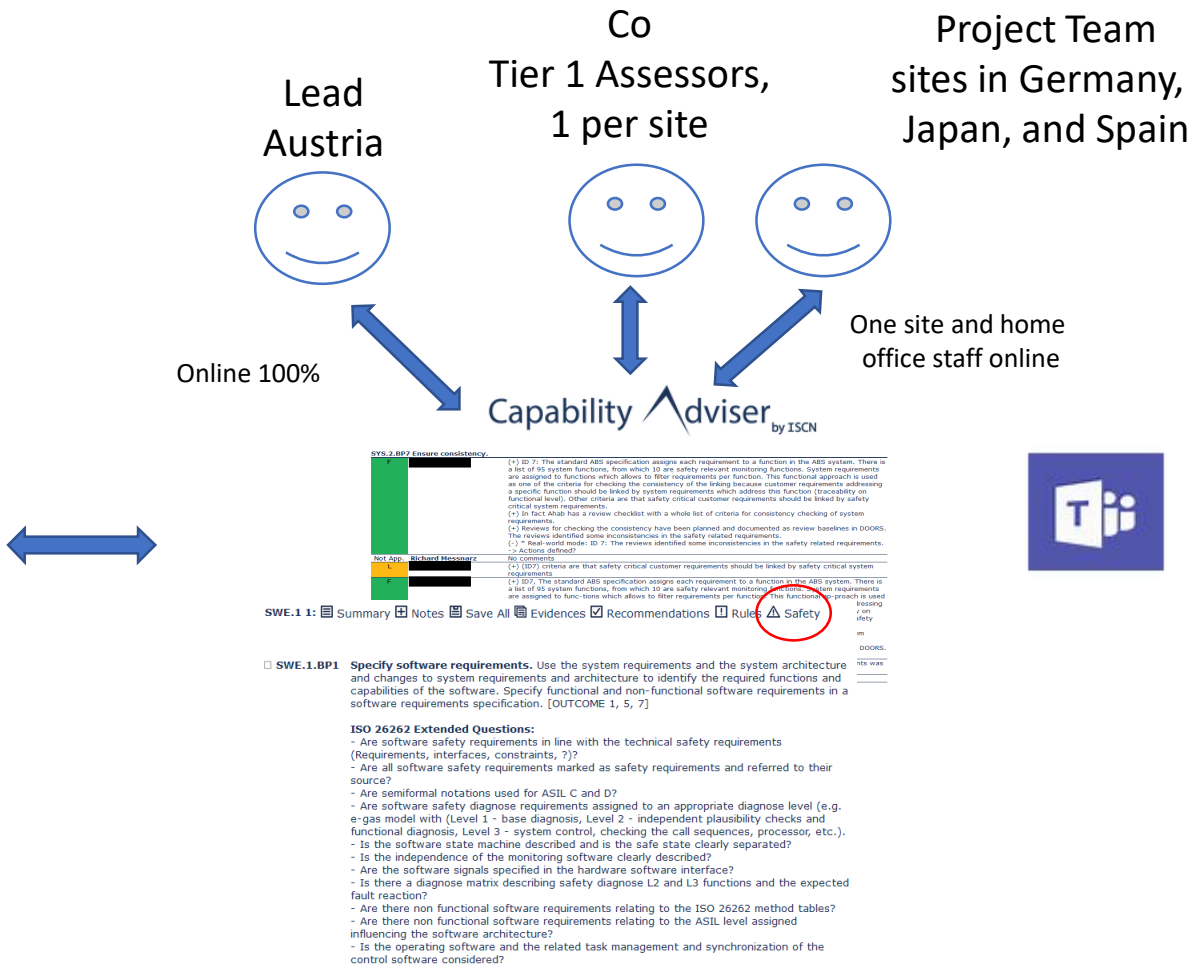
- Large Japanese Tier 1, German OEM as customer
- Lead assessor in Austria online
- Safety manager onsite in Germany with German team
- Spanish (SW) and Japanese teams (HW) online
- Each site has a co-assessor onsite in their country supporting the lead
- Interviewees from 4 different sites, presenting online
- Significant number of staff in home office and participating online via VPN

Technology Set Up

- Assessment **Portal with safety extension**
- **Each assessor rating separately, sharing comments to BPs/GPs by a consolidation view**
- All connected by MS Teams
- Access and demonstration of content by the interviewee in MS teams and accessing project data by VPN

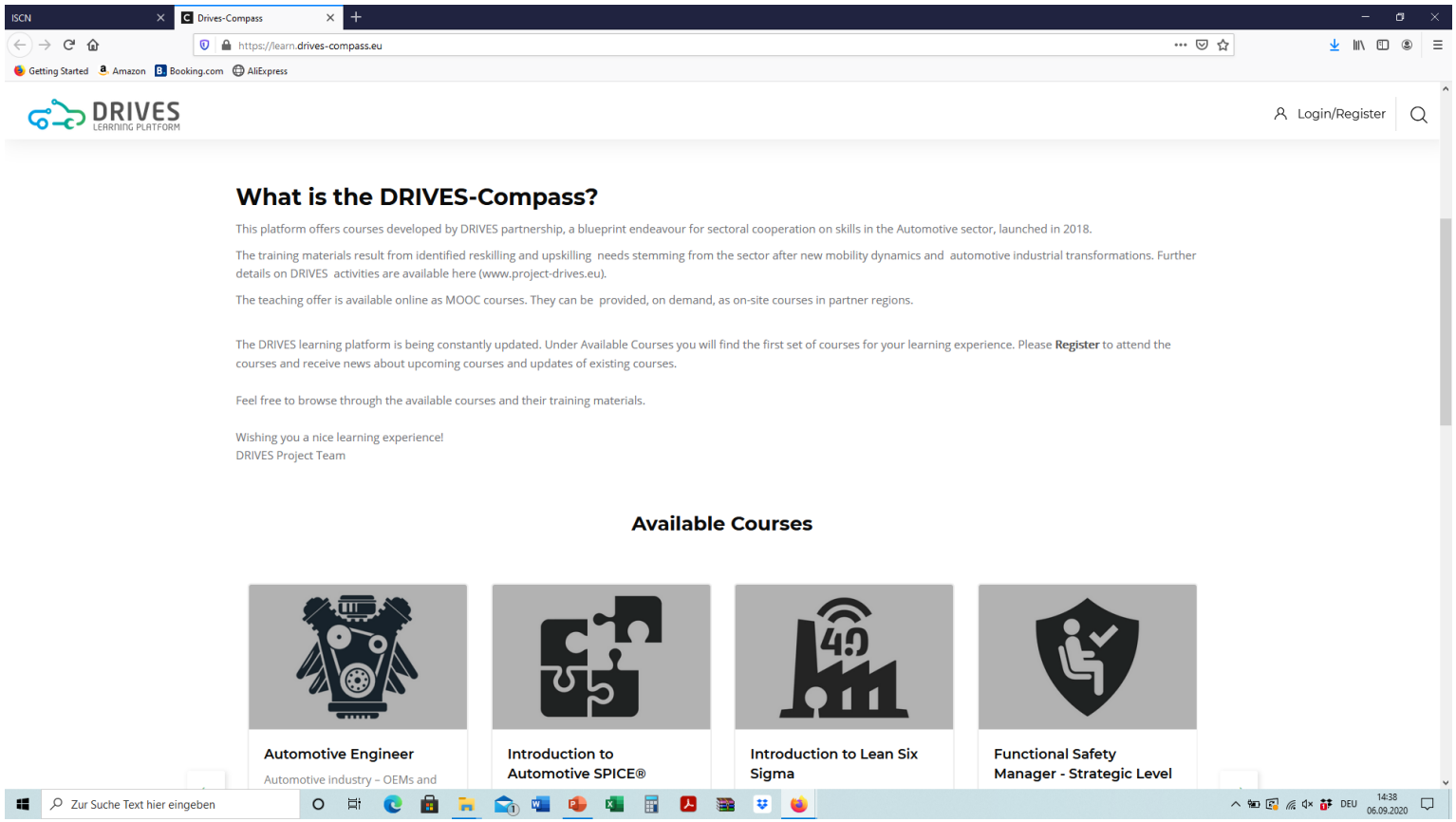
Organisational Set Up

- **4 half day quick online pre-assessments, to get adjusted.**
- Then many half day assessments spanning over 1 month to assess the VDA scope plus HW SPICE.
- 1 project assessed



Learning Infrastructures – on a strategy level for European car industry https://www.project-drives.eu/en/ourpartners

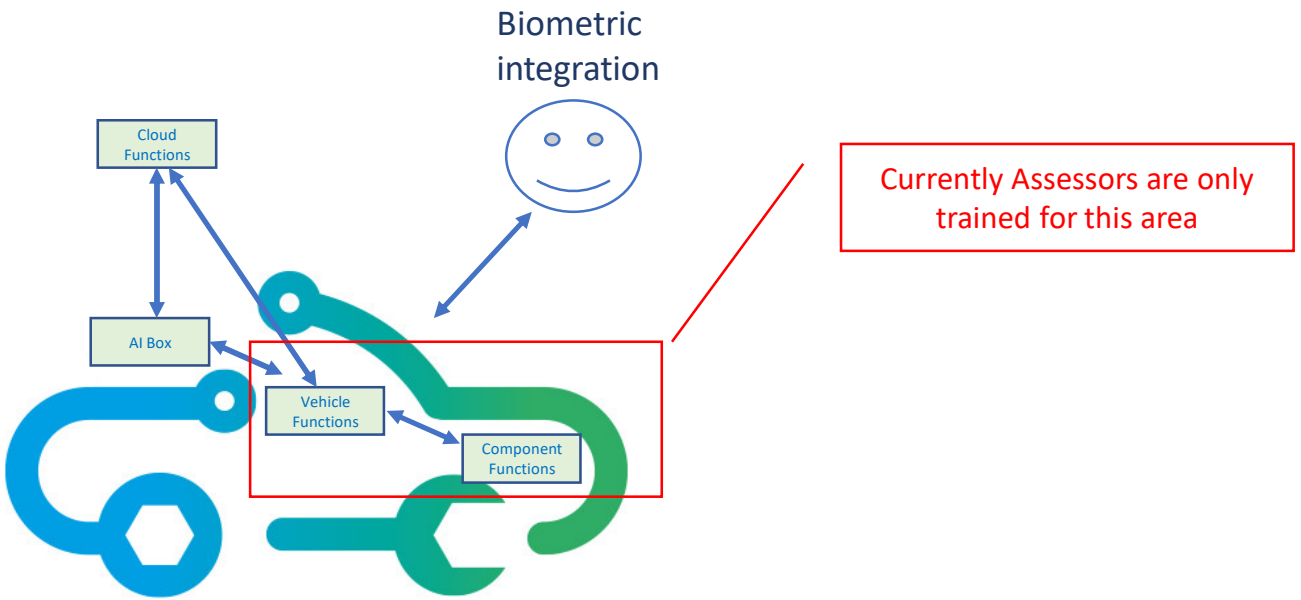
- DRIVES Compass
  https://learn.drives-compass.eu/



New Functional layers

New paradigms/best practices needed for

- How to test and assess AI?
- How to assess infrastructure? Difference between ASIL and service quality.
- Cloud functions do not follow the deterministic approach of a Turing machine!
- Will we assess (I learned from T-Systems years ago) also the technical infrastructure?



Assessment Models & Architectural Frameworks need to be synchronized continuously

- ✓ Assessments, consulting and training in the field of System, Services and Software Process Improvement and Innovation

EURO SPI² ASIA

- ✓ Organiser of the EuroSPI (European Software, Sytem and Services Process Improvement and Innovation) conference series since 1994 (www.eurospi.net)

ECQA
European Certification & Qualification Association

- ✓ Founding member, vice-president and technology provider for the European Certification and Qualification Association

- ✓ Accreditated iNTACS™ training provider for Automotive SPICE®

- ✓ Moderator of the German SOQRATES initiative, where 23 leading Germany companies share knowledge concerning process improvement in the field of Functional Safety, Cybersecurity, Traceability…